

1. An adapter assembly for connecting a fluid supply assembly to a fluid applicator comprising:

an outer lid for the fluid supply assembly, the outer lid having an integral generally cylindrical fitting with an opening therethrough, the fitting having a tab at an upper end

5 and a horizontal stop at a lower end; and

an adapter having a first end and a second end, and a bore between the first end and the second end, the first end having a connecting surface adapted to mate with a complementary connecting surface on the fluid applicator, the second end having a portion having a first shape and a portion having a second shape, the portion having the first shape
10 being adapted to pass by the tab so that the second end can be inserted into the fitting, and the portion having the second shape being adapted so that it cannot pass by the tab, the second end having a height so that the second end fits between the horizontal stop and the tab of the fitting, whereby when the adapter is rotated, the portion having the second shape is retained under the tab so that the adapter is locked to the outer lid.

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2. The adapter assembly of claim 1 wherein the portion having the first shape is flat, and the portion having the second shape is curved.

3. The adapter assembly of claim 2 wherein there are two opposing flat portions and
20 two opposing curved portions.

4. The adapter assembly of claim 1 wherein the first end is generally cylindrical.

5. The adapter assembly of claim 4 wherein the portion having the second shape is
25 curved and wherein a diameter of the first end is smaller than a diameter of the curved portion of the second end.

6. The adapter assembly of claim 1 wherein there are at least two portions having the first shape.

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7. The adapter assembly of claim 1 wherein there are at least two portions having the second shape.

8. The adapter assembly of claim 1 wherein the connecting surface and complementary connecting surface are selected from threads, lugs and grooves, tapered connections, bayonet connections, or snap connections.

9. The adapter assembly of claim 1 further comprising a disposable lid having an integral generally cylindrical fitting with an opening therethrough, the fitting of the disposable lid adapted to fit inside the bore of the adapter when the adapter is locked to the outer lid, the opening of the disposable lid being in fluid communication with the bore of the adapter.

10. The adapter assembly of claim 1 wherein the adapter is made of metal.

11. The adapter assembly of claim 1 wherein the outer lid is made of plastic.

12. The adapter assembly of claim 1 wherein the fitting is generally cylindrical.

13. The adapter assembly of claim 1 further comprising a filter placed in the bore of the adapter.

14. The adapter assembly of claim 1 wherein the fitting has a vertical stop in the opening.

15. The adapter assembly of claim 14 wherein the vertical stop extends from the tab to the horizontal stop.

16. An adapter assembly for connecting a fluid supply assembly to a fluid applicator comprising:

an outer lid for the fluid supply assembly, the outer lid having an integral generally cylindrical fitting with an opening therethrough, the fitting having a tab at an upper end and a horizontal stop at a lower end;

an adapter having a first end and a second end, and a bore between the first end and the second end, the first end having a connecting surface adapted to mate with a complementary connecting surface on the fluid applicator, the second end having a flat

portion and a curved portion, the flat portion being adapted to pass by the tab so that the second end can be inserted into the fitting, and the curved portion being adapted so that it cannot pass by the tab, the second end having a height so that the second end fits between the horizontal stop and the tab of the fitting, whereby when the adapter is rotated, the

5 curved portion is retained under the tab so that the adapter is locked to the outer lid; and

a disposable lid having an integral generally cylindrical fitting with an opening therethrough, the fitting of the disposable lid adapted to fit inside the bore of the adapter when the adapter is locked to the outer lid, the opening of the disposable lid being in fluid communication with the bore of the adapter.

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17. The adapter assembly of claim 16 wherein the first end is generally cylindrical.

18. The adapter assembly of claim 16 wherein a diameter of the first end is smaller than a diameter of the curved portion of the second end.

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19. The adapter assembly of claim 16 wherein there are two opposing flat portions and two opposing curved portions.

20. The adapter assembly of claim 16 wherein the connecting surface and complementary connecting surface are selected from threads, lugs and grooves, tapered connections, bayonet connections, or snap connections.

21. The adapter assembly of claim 16 wherein the fitting of the outer lid and the fitting of the disposable lid are generally cylindrical.

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22. The adapter assembly of claim 16 wherein the fitting has a vertical stop in the opening.

23. The adapter assembly of claim 22 wherein the vertical stop extends from the tab to the horizontal stop.

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24. A method of connecting a fluid supply assembly to a fluid applicator comprising:
providing an outer lid for the fluid supply assembly, the outer lid having an integral generally cylindrical fitting with an opening therethrough, the fitting having a tab at an upper end and a horizontal stop at a lower end;

5 providing an adapter having a first end and a second end, and a bore between the first end and the second end, the first end having a connecting surface adapted to mate with a complementary connecting surface on the fluid applicator, the second end having a portion having a first shape and a portion having a second shape, the portion having the first shape being adapted to pass by the tab and the portion having the second shape being
10 adapted so that it cannot pass by the tab, the second end having a height so that the second end fits between the horizontal stop and the tab of the fitting;

connecting the first end of the adapter to the fluid applicator;

matching the portion having the first shape with the tab of the fitting and inserting the second end of the adapter into the fitting in the outer lid until the second end reaches
15 the horizontal stop; and

rotating the second end of the adapter in the fitting so that the portion having the second shape is retained under the tab thereby locking the adapter to the outer lid.

25. The method of claim 24 further comprising:

20 providing a disposable lid having an integral generally cylindrical fitting with an opening therethrough; and

inserting the fitting of the disposable lid into the bore of the adapter.

26. The method of claim 24 wherein the fitting has a vertical stop in the opening, and
25 wherein the second end of the adapter is rotated until it engages the vertical stop.